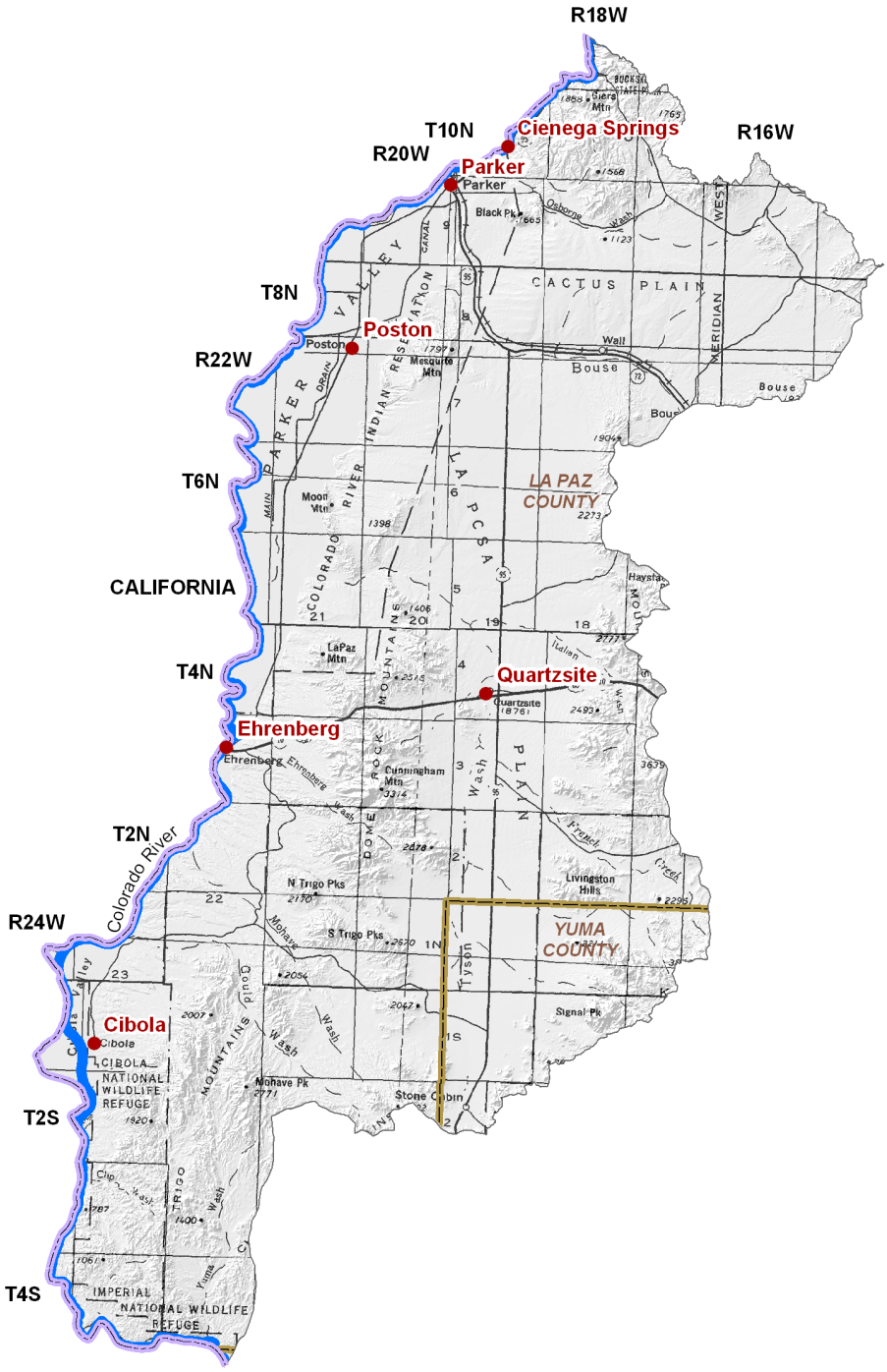
Section 7.6
Parker Basin

7.6.1 Geography of the Parker Basin

The Parker Basin, located in the western part of the planning area is 2,229 square miles in area. Geographic features and principal communities are shown on Figure 7.6-1. The basin is characterized by plains and valleys with low elevation mountain ranges. Vegetation types include Lower Colorado River Valley and Arizona Uplands Sonoran desertscrub. (See Figure 7.0-7)

- Principal geographic features shown on Figure 7.6-1 are:
    - Principal basin communities of Cibola, Ehrenberg, Parker and Quartzite
    - Other communities of Poston and Cienega Springs
    - The Colorado River along the western basin boundary
    - Plains and valleys including La Posa Plain in the center of the basin, Parker Valley on the northwestern basin boundary and Cactus Plain in the northern portion of the basin
    - Mountain ranges including the Trigo and Dome Rock Mountains in the center of the basin
    - The highest point in the basin, Cunningham Mountain, at 3,314 feet in the Dome Rock Mountains east of Ehrenberg
- Not well shown on Figure 7.6-1 are the Kofa Mountains on the eastern basin boundary and the lowest point in the basin at 150 feet where the Colorado River exits the basin.



Base Map: USGS 1:500,000, 1981

Figure 7.6-1
Parker Basin
Geographic Features

7.6.2 Land Ownership in the Parker Basin

Land ownership, including the percentage of ownership by category, for the Parker Basin is shown in Figure 7.6-2. The principal feature of land ownership in this basin is the very small proportion of private land. A description of land ownership data sources and methods is found in Volume 1, Section 1.3.8. Land ownership categories are discussed below in the order of largest to smallest percentage in the basin.

U.S. Bureau of Land Management (BLM)

- 49.7% of the land is federally owned and managed by the Yuma Field Office of the Bureau of Land Management.
- This basin includes the 30,000 acre Trigo Mountains Wilderness, the 19,000 acre Gibraltar Mountain Wilderness and the 15,000 acre East Cactus Plain Wilderness. (See Figure 7.0-9)
- Land uses include grazing, resource conservation and recreation.

U.S. Military

- 19.5% of the land is federally owned and managed by the U.S. Military as the Yuma Proving Ground.
- Primary land use is military activity.

Indian Reservation

- 16.4% of the land is under tribal ownership as the Colorado River Indian Tribes Reservation.
- Land uses include domestic, commercial and agriculture.

National Wildlife Refuge

- 9.3% of the land is federally owned and managed by the U.S. Fish and Wildlife Service as the Kofa National Wildlife Refuge (NWR), Cibola NWR and the Imperial NWR
- Land uses include resource conservation, wildlife protection and recreation.

State Trust Land

- 3.7% of the land is held in trust for the public schools under the State Trust Land system.
- Primary land use is agriculture.

Private

- 1.3% of the land is private.
- Small parcels of private land are located in the vicinity of Highway 95, north of Cibola, and at Parker and Cienega Springs
- Land uses include domestic, commercial and agriculture.

Other

- 0.1% of the land is federally owned and managed by the U.S. Bureau of Reclamation (USBOR)
- USBOR lands are located north of Cibola along the Colorado River.
- Primary land use is unknown.

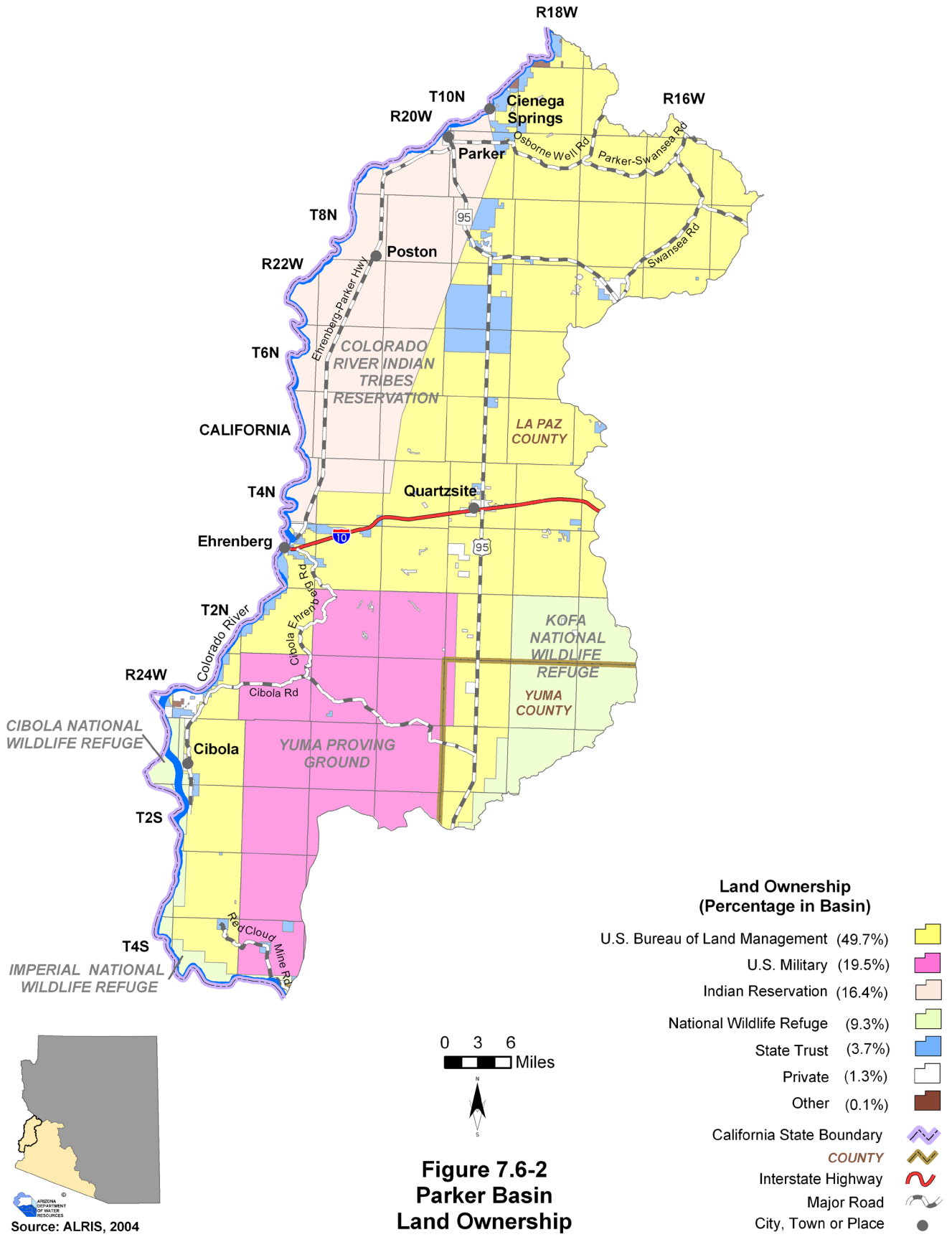


Figure 7.6-2
Parker Basin
Land Ownership

7.6.3 Climate of the Parker Basin

Climate data from NOAA/NWS Co-op Network and AZMET stations are complied in Table 7.6-1 and the locations are shown on Figure 7.6-3. Figure 7.6-3 also shows precipitation contour data from the Spatial Climate Analysis Service (SCAS) at Oregon State University. The Parker Basin does not contain Evaporation Pan or SNOTEL/ Snowcourse stations. A description of the climate data sources and methods is found in Volume 1, Section 1.3.3.

NOAA/NWS Co-op Network

- Refer to Table 7.6-1A
- Temperatures at the five NOAA/NWS Co-op Network stations in the basin range from an average high temperature of 94.8°F at Quartzite to an average low of 49.8°F at Bouse.
- Average seasonal rainfall follows a bi-modal pattern with approximately one-third of the average seasonal rainfall occurring in the winter (January-March) season and one-third in the summer (July-September) season. The highest average annual rainfall in this basin is 5.89 inches at the Bouse station.

AZMET

- Refer to Table 7.6-1C
- There is one AZMET station in the basin, Parker. This station is at 308 feet and has an annual reference evaportranspiration of 82.93 inches.

SCAS Precipitation Data

- See Figure 7.6-3
- Additional precipitation data shows average annual rainfall as high as 10 inches along the eastern basin boundary and as low as four inches or less along the Colorado River on the western basin boundary.

Table 7.6-1 Climate Data for the Parker Basin

A. NOAA/NWS Co-op Network:

Station Name	Elevation (in feet)	Period of Record Used for Averages	Average Temperature Range (in F)		Average Total Precipitation (in inches)				
			Max/Month	Min/Month	Winter	Spring	Summer	Fall	Annual
Bouse	930	1971 - 2000	92.2/Jul	49.8/Dec	2.14	0.38	2.12	1.25	5.89
Ehrenberg	320	1948 - 1977[1]	93.1/Jul	52.8/Jan	0.94	0.28	1.41	0.90	3.50
Ehrenberg 2E	460	1971 - 2000	94.4/Jul	54.5/Dec	1.42	0.21	1.69	1.05	4.37
Parker 6 NE	41	1971 - 2000	93.2/Jul	53.9/Dec	2.22	0.28	1.45	1.22	5.17
Quartzsite	870	1971 - 2000	94.8/Jul	51.8/Dec	1.36	0.23	1.18	0.74	3.51

Source: WRCC, 2003
Notes:
[1]Average temperature data from period of record shown; average precipitation data from 1971 - 2000

B. Evaporation Pan:

Station Name	Elevation (in feet)	Period of Record Used for Averages	Avg. Annual Evap (in inches)
None			

Source: WRCC, 2003

C. AZMet:

Station Name	Elevation (in feet)	Period of Record Used for Averages	Average Annual Reference Evaportranspiration, in inches *(Number of years to calculate averages)*
Parker	308	1987 - current	82.93 (6)

Source: Arizona Meteorlogical Network, 2005

C. SNOTEL/Snowcourse:

Station Name	Elevation (in feet)	Period of Record Used for Averages	Average Snowpack, as Snow Water Content, at the Beginning of the Month, in Inches *(Number of measurements to calculate average)*					
			Jan.	Feb.	March	April	May	June
None								

Source: NRCS, 2005

Precipitation Data Source: Oregon State University, 1998

Figure 7.6-3
Parker Basin
Meteorological Stations and Annual Precipitation

7.6.5 Surface Water Conditions in the Parker Basin

Streamflow data, including average seasonal flow, average annual flow and other information are shown in Table 7.6-2. Flood ALERT equipment in the basin is shown in Table 7.6-3. Reservoir and stockpond data, including maximum storage or maximum surface area, are shown in Table 7.6-4. The location of streamflow gages identified by USGS number, flood ALERT equipment and large reservoirs are shown on Figure 7.6-4. There are no USGS runoff contour data available for this basin. A description of stream data sources and methods is found in Volume 1, Section 1.3.16. A description of reservoir data sources and methods is found in Volume 1, Section 1.3.11. A description of stockpond data sources and methods is found in Volume 1, Section 1.3.15.

Streamflow Data

- Refer to Table 7.6-2.
- Data from three stations located on the Colorado River are shown in the table and on Figure 7.6-4.
- Average seasonal flow is highest in spring and summer at the three stations and is regulated by scheduled releases from dams.
- The largest annual flow recorded in the basin is more than 20 million acre feet in 1984 at the Colorado River below Parker Dam station with a contributing drainage area of 182,700 square miles.

Flood ALERT Equipment

- Refer to Table 7.6-3.
- As of October 2005 there was one precipitation station in the basin located at Tyson Wash.

Reservoirs and Stockponds

- Refer to Table 7.6-4.
- The basin contains five large reservoirs or dams. The largest, Lake Havasu, with a maximum storage of 651,000 acre-feet, is located in the Upper Colorado River Planning Area but Parker Dam is located at the basin boundary.
- Reservoirs in this basin are used for water supply, irrigation, hydroelectric power, recreation and fish and wildlife.
- Surface water is stored or could be stored in five small reservoirs in the basin.
- There are five registered stockponds in this basin.

Table 7.6-2 Streamflow Data for the Parker Basin

Station Number	USGS Station Name	Drainage Area (in mi^2)	Mean Basin Elevation (in feet)	Period of Record	Average Seasonal Flow (% of annual flow)				Annual Flow/Year (in acre-feet)				Years of Record
					Winter	Spring	Summer	Fall	Minimum	Median	Mean	Maximum	
9427520	Colorado River below Parker Dam[1]	182,700	400	1936 - 2004 (real time)	23	28	28	20	5,534,256 (1993)	7,229,140	8,918,956	20,409,560 (1984)	61
9429100	Colorado River below Palo Verde Dam[1]	182,200	260	1957 - 2004 (real time)	22	31	30	17	4,369,340 (1993)	5,507,468	5,831,096	9,860,880 (1958)	39
9429300	Colorado River below Cibola Valley	183,800	NA	4/1956 - 9/1988	22	28	30	19	5,365,301 (1982)	6,187,223	7,801,072	19,016,442 (1984)	31

Sources: USGS NWIS, USGS 1998 and USGS 2003.

Notes:
[1]Station in California
NA = Not available
Statistics based on Calendar Year
Annual Flow statistics based on monthly values
Annual Flow/Year statistics were only completed for those gages that had at least 3 years of 12 month records.
Summation of Average Annual Flows may not equal 100 due to rounding.
Period of record may not equal Year of Record used for annual Flow/Year statistics due to only using years with a 12 month record

Table 7.6-3 Flood ALERT Equipment in the Parker Basin

Station ID	Station Name	Station Type	Install Date	Responsibility
7203	Quartzite	Precipitation	12/5/2001	ADWR

Notes:
ADWR = Arizona Department of Water Resources

Table 7.6-4 Reservoirs and Stockponds in the Parker Basin

A. Large Reservoirs (500 acre-feet capacity and greater)

MAP KEY	RESERVOIR/LAKE NAME *(Name of dam, if different)*	OWNER/OPERATOR	MAXIMUM STORAGE (AF)	USE[1]	JURISDICTION
1	Lake Havasu *(Parker)* [2]	Bureau of Reclamation	651,000	S, I, H	Federal
2	Moovalya Lake *(Headgate Rock)*	Bureau of Reclamation	20,000	I, H, R	Federal

Source: US Army Corps of Engineers 2005

B. Other Large Reservoirs (50 acre surface area or greater)[3]

MAP KEY	RESERVOIR/LAKE NAME *(Name of dam, if different)*	OWNER/OPERATOR	MAXIMUM SURFACE AREA (acres)	USE[1]	JURISDICTION
3	Cibola	Bureau of Reclamation/ USFWS	400	R,F	Federal
4	Island	Bureau of Reclamation/ USFWS	220	F	Federal
5	Adobe	Bureau of Reclamation/ USFWS	209	F	Federal

C. Small Reservoirs (greater than 15 acre-feet and less than 500 acre-feet capacity)

Total number: 0
Total maximum storage: 0 acre-feet

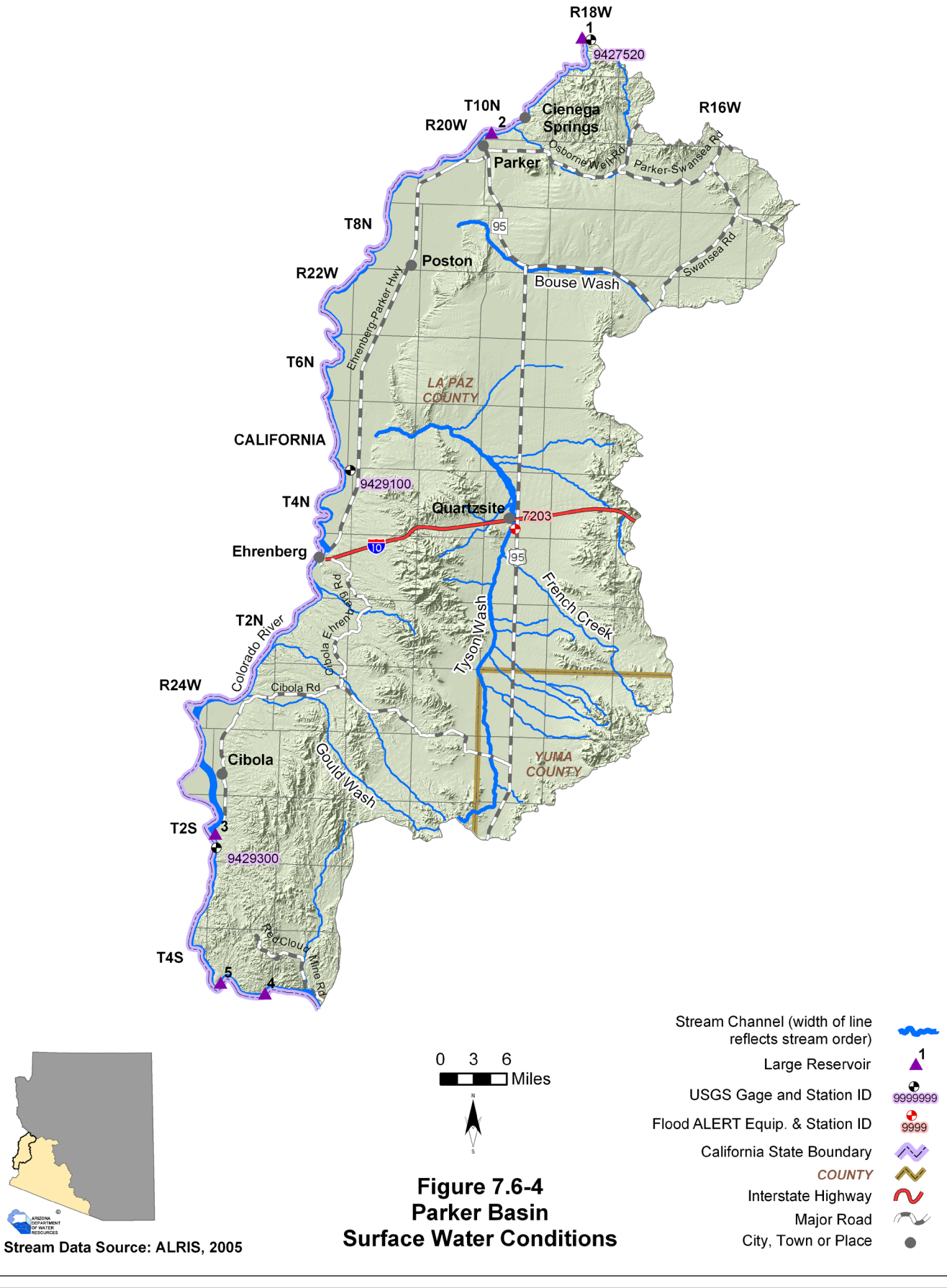
D. Other Small Reservoirs (between 5 and 50 acres surface area)[3]

Total number: 5
Total surface area: 188 acres

E. Stockponds (up to 15 acre-feet capacity)

Total number: 5

Notes:
[1] S = Supply; I = Irrigation; H = Hydroelectric power; F=Fish & wildlife pond; R=Recreation
[2] Dam is located in the Parker Basin and lake storage is in the Lake Havasu Basin in the Upper Colorado River Planning Area.
[3] Capacity data not available to ADWR
USFWS = United States Fish and Wildlife Service



Stream Data Source: ALRIS, 2005

Figure 7.6-4
Parker Basin
Surface Water Conditions

7.6.5 Perennial/Intermittent Streams and Major Springs in the Parker Basin

The total number of springs in the basin are shown in Table 7.6-5. The location of a perennial stream is shown on Figure 7.6-5. A description of data sources and methods for intermittent and perennial reaches is found in Volume 1, Section 1.3.16. A description of spring data sources and methods is found in Volume 1, Section 1.3.14.

- There are no intermittent streams and one perennial stream, the Colorado River.
- There are no major or minor springs in the basin.
- The total number of springs, regardless of discharge, identified by the USGS varies from 11 to 12, depending on the database reference.

Table 7.6-5 Springs in the Parker Basin

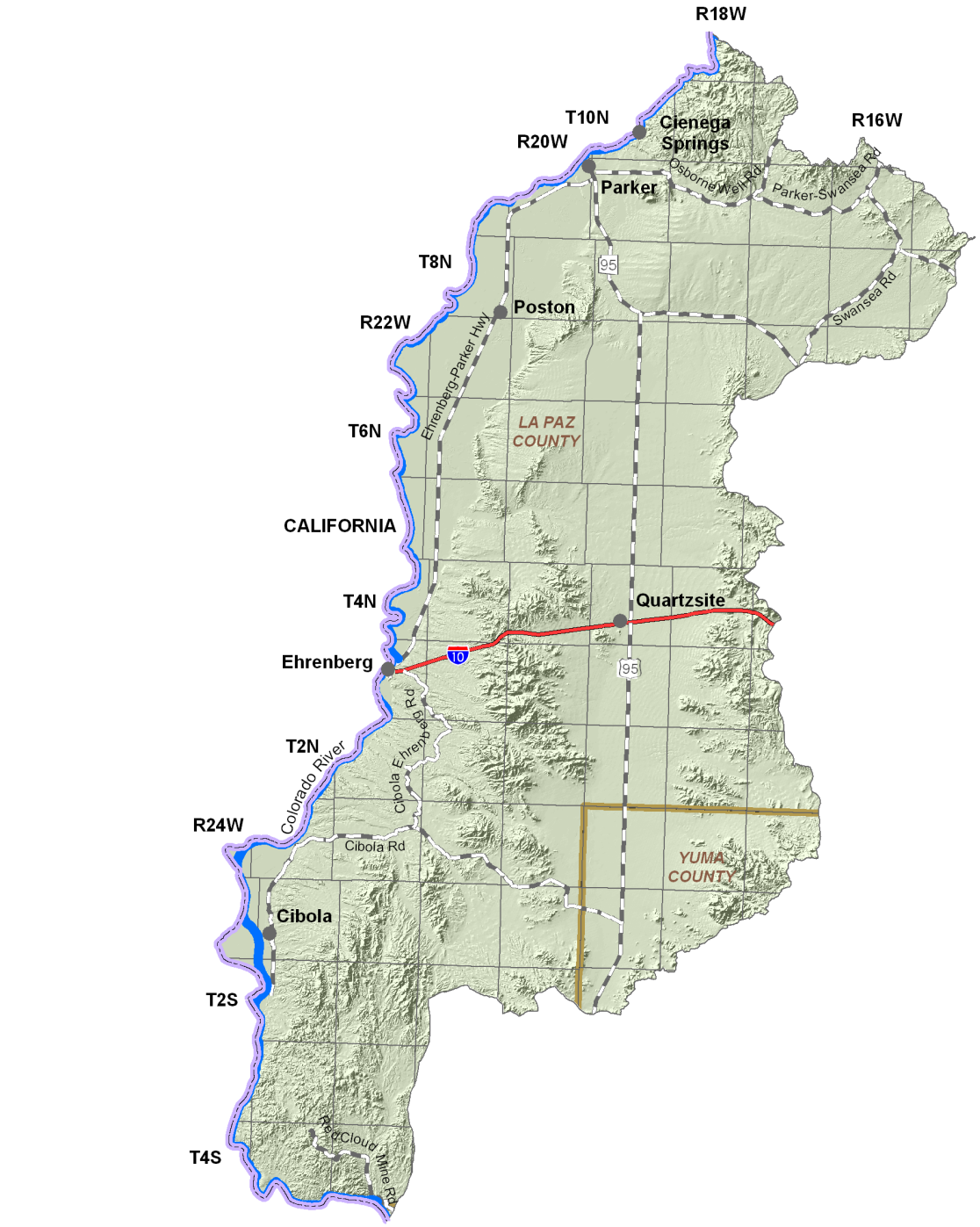
A. Major Springs (10 gpm or greater):

Map Key	Name	Location		Discharge (in gpm)	Date Discharge Measured
		Latitude	Longitude		
None identified by ADWR at this time					

B. Minor Springs (1 to 10 gpm):

Name	Location		Discharge (in gpm)	Date Discharge Measured
	Latitude	Longitude		
None identified by ADWR at this time				

C. Total number of springs, regardless of discharge, identified by USGS (see ALRIS, 2005 and USGS, 2006): 11 - 12



Stream Data Source: AGFD, 1993 & 1997

0 3 6
Miles

N
S

Figure 7.6-5
Parker Basin
Perennial\Intermittent Streams and Major (>10 gpm) Springs

Perennial Stream
California State Boundary
COUNTY
Interstate Highway
Major Road
City, Town or Place

7.6.6 Groundwater Conditions of the Parker Basin

Major aquifers, well yields, estimated water in storage, number of index wells and date of last water-level sweep are shown in Table 7.6-6. Figure 7.6-6 shows aquifer flow direction and water-level change between 1990-1991 and 2003-2004. Figure 7.6-7 contains hydrographs for selected wells shown on Figure 7.6-6. Figure 7.6-8 shows well yields in five yield categories. A description of aquifer data sources and methods is found in Volume 1, Section 1.3.2. A description of well data sources and methods, including water-level changes and well yields, is found in Volume 1, Section 1.3.19.

Major Aquifers

- Refer to Table 7.6-6 and Figure 7.6-6.
- The major aquifer is recent stream alluvium and sedimentary rock (Bouse Formation).
- Groundwater flow is from the south and east toward the Colorado River.

Well Yields

- Refer to Table 7.6-6 and Figure 7.6-8.
- As shown on Figure 7.6-8, well yields are generally less than 100 gallons per minute (gpm) although higher well yields are found near the Colorado River.
- One source of well yield information, based on 75 reported wells, indicates that the median well yield is 100 gpm.

Natural Recharge

- Refer to Table 7.6-6.
- The estimate of natural recharge is 241,000 acre-feet per year.
- The largest source of natural recharge is the Colorado River (ADWR 1994).

Water in Storage

- Refer to Table 7.6-6.
- There are three estimates of water in storage ranging from 14 million acre-feet to 24 million acre-feet, both to a depth of 1,200 feet.

Water Level

- Refer to Figure 7.6-6. Water levels are shown for wells measured in 2003-2004.
- The Department annually measures six index wells in this basin; hydrographs for the six index wells and two additional wells are shown on Figure 7.6-7.
- The deepest water level shown on the map is 553 feet north of Quartzsite and the shallowest is 10 feet west of the Cibola Ehrenberg Road near the Colorado River.

Table 7.6-6 Groundwater Data for the Parker Basin

Basin Area, in square miles:	2,229	
Major Aquifer(s):	**Name and/or Geologic Units**	
	Recent Stream Alluvium	
	Sedimentary Rock (Bouse Formation)	
Well Yields, in gal/min:	N/A	Measured by ADWR and/or USGS
	Range 2-6,000 Median 100 (75 wells reported)	Reported on registration forms for large (> 10-inch) diameter wells
	Range 30-900	ADWR (1990 and 1994)
	Range 0-2,500	USGS (1994)
Estimated Natural Recharge, in acre-feet/year:	241,000	Freethey and Anderson (1986)
Estimated Water Currently in Storage, in acre-feet:	14,000,000 (to 1,200 ft)	ADWR (1994)
	24,000,000[1] (to 1,200 ft)	Freethey and Anderson (1986)
	21,000,000 (to 1,200 ft)	Arizona Water Commission (1975)
Current Number of Index Wells:	6	
Date of Last Water-level Sweep:	1995-97 (348 wells measured)	

[1]Predevelopment Estimate

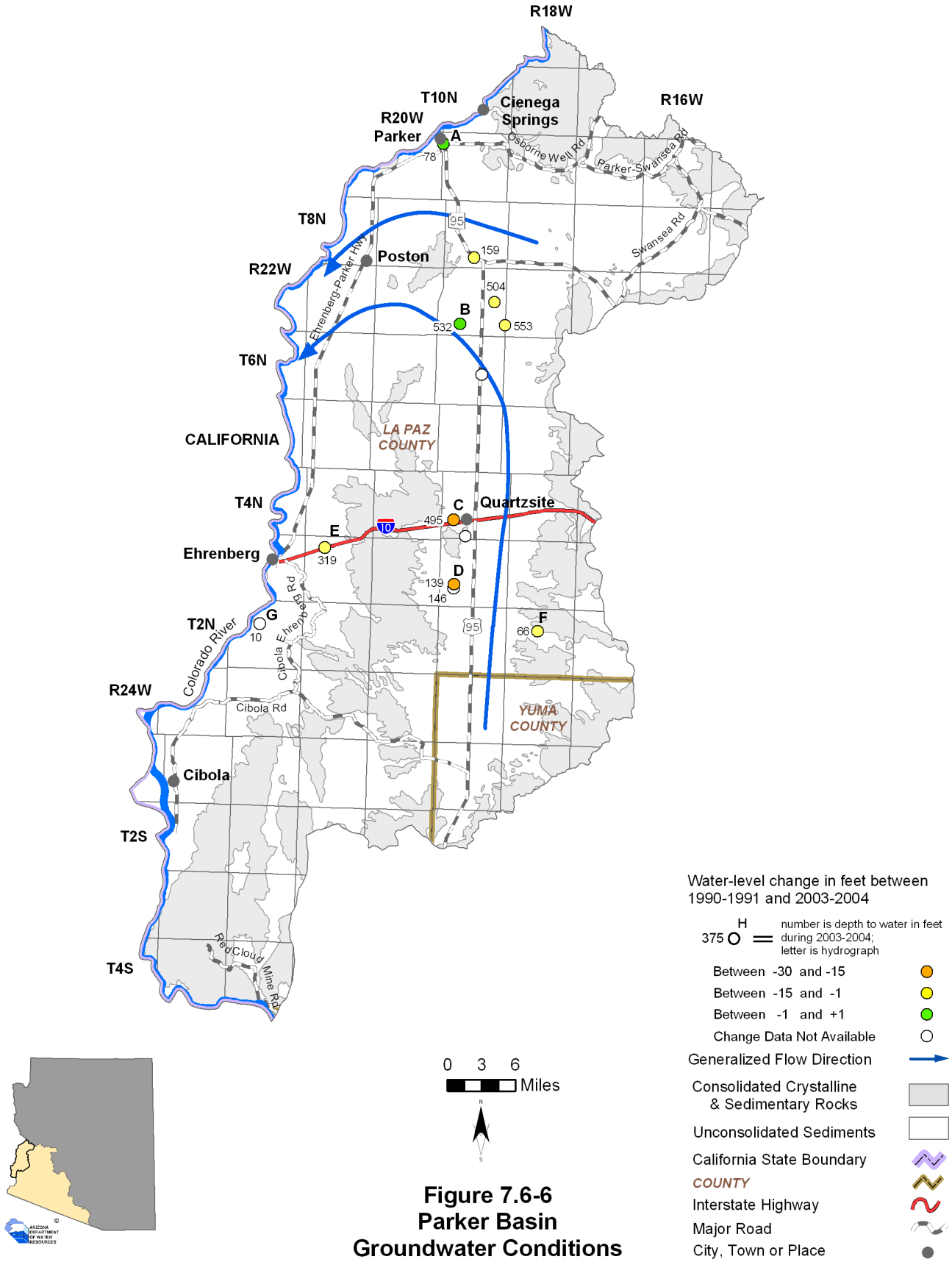


Figure 7.6-6
Parker Basin
Groundwater Conditions

Figure 7.6-7
Parker Basin
Hydrographs Showing Depth to Water in Selected Wells

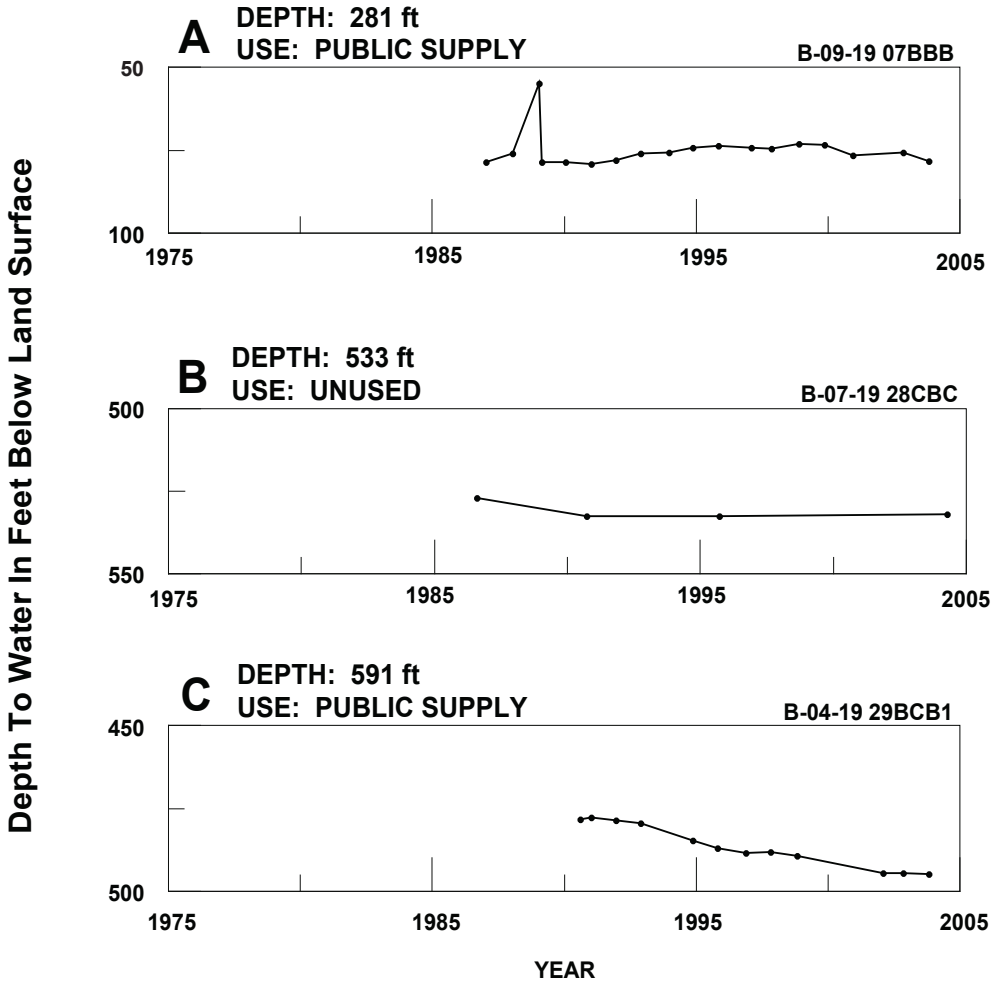
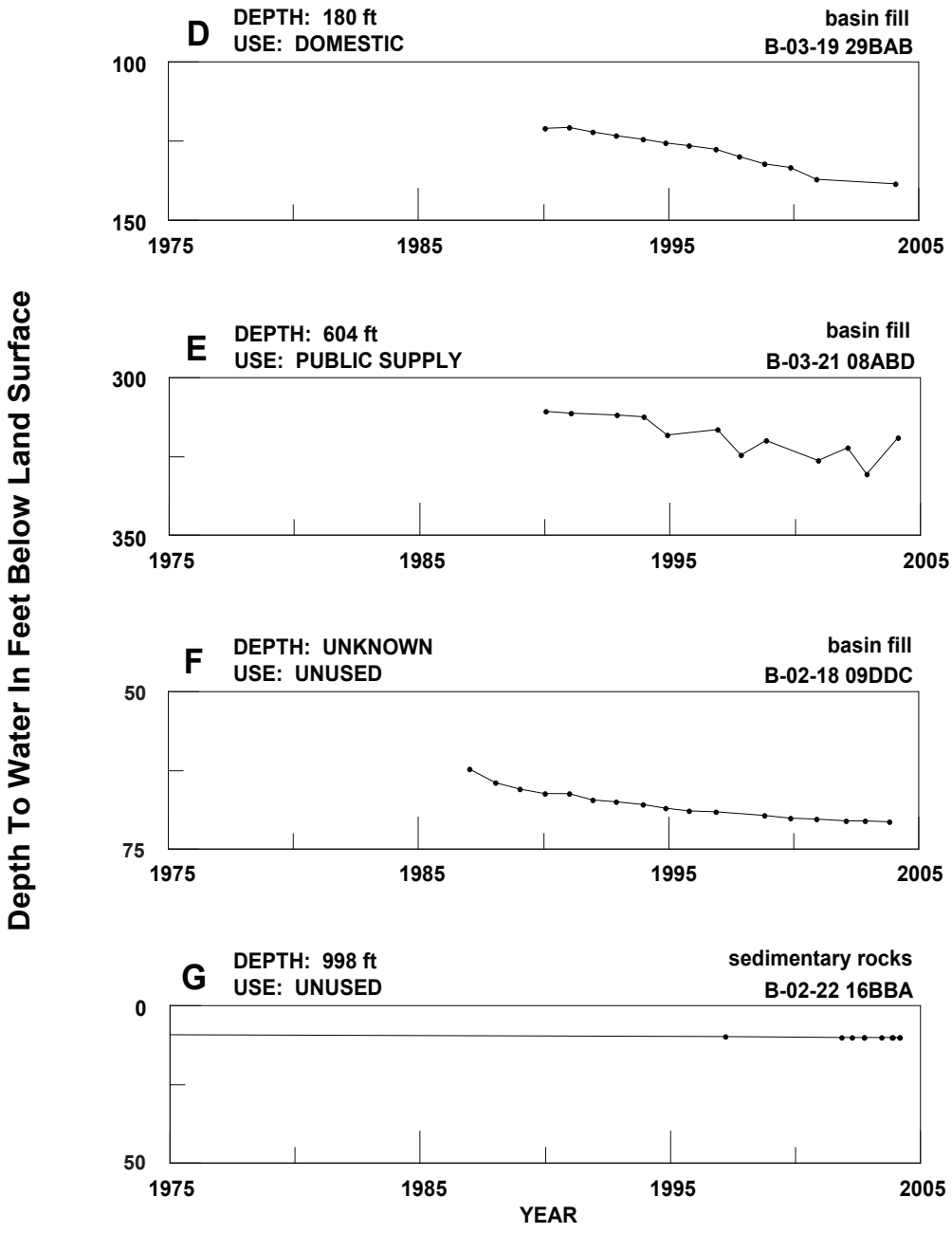


Figure 7.6-7 (cont'd)
Parker Basin
Hydrographs Showing Depth to Water in Selected Wells



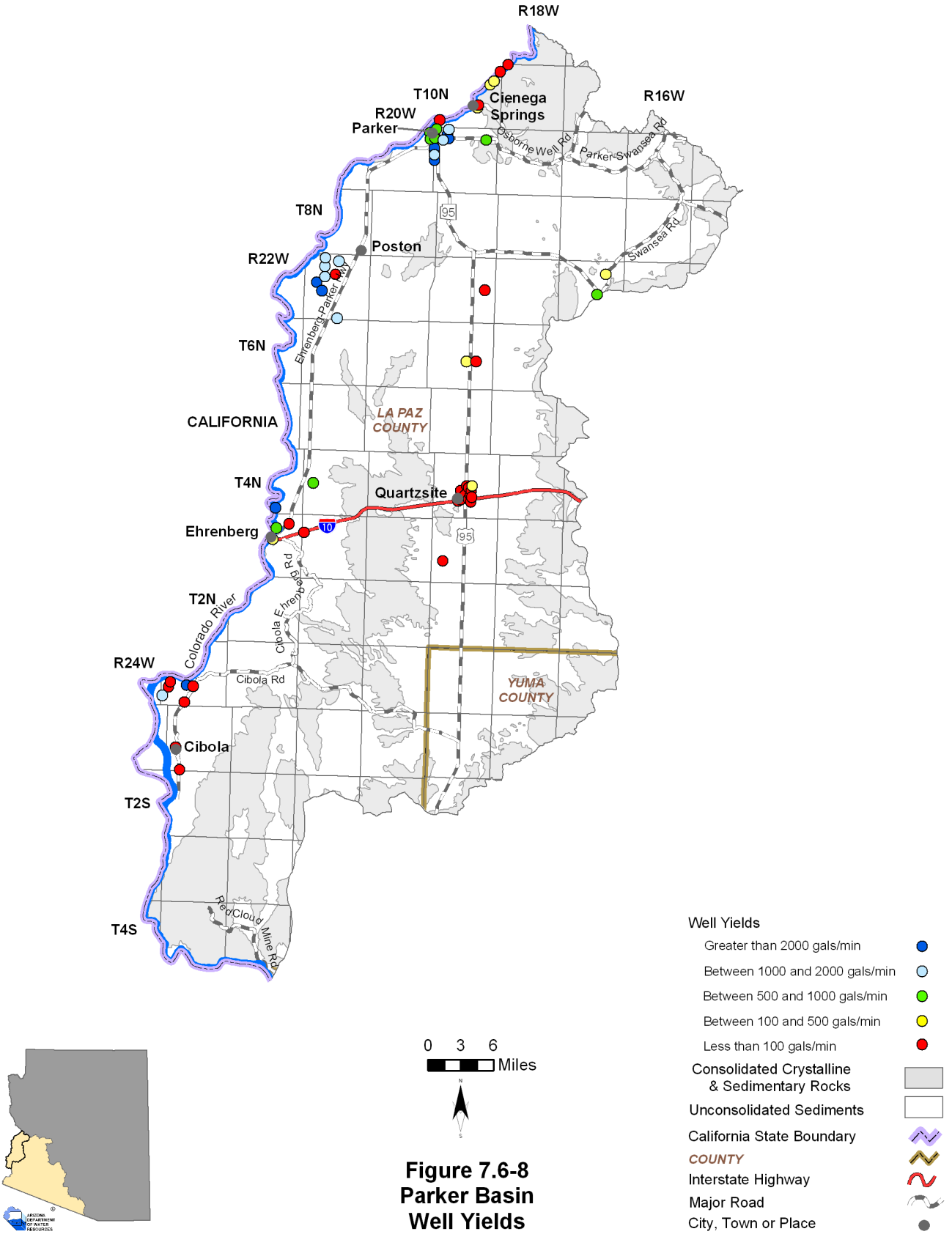


Figure 7.6-8
Parker Basin
Well Yields

7.6.7 Water Quality of the Parker Basin

Wells, springs and mine sites with parameter concentrations that have equaled or exceeded drinking water standard(s), including location and parameter(s) are shown in Table 7.6-7A. There are no impaired lakes or streams in this basin. Figure 7.6-9 shows the location of water quality occurrences keyed to Table 7.6-7. A description of water quality data sources and methods is found in Volume 1, Section 1.3.18. Not all parameters were measured at all sites; selective sampling for particular constituents is common.

Wells, Springs and Mine Sites

- Refer to Table 7.6-7A.
- Fifty-two wells have parameter concentrations that have equaled or exceeded drinking water standards.
- The parameter most frequently equaled or exceeded was nitrate.
- Other parameters equaled or exceeded include arsenic, chromium, lead, fluoride and organics.

Table 7.6-7 Water Quality Exceedences in the Parker Basin[1]

A. Wells, Springs and Mines

Map Key	Site Type	Site Location			Parameter(s) Concentration has Equaled or Exceeded Drinking Water Standard (DWS)[2]
		Township	Range	Section	
1	Well	10 North	19 West	27	F
2	Well	10 North	19 West	27	F
3	Well	10 North	19 West	27	F
4	Well	9 North	19 West	7	As
5	Well	9 North	10 West	1	As
6	Well	6 North	20 West	13	F
7	Well	4 North	19 West	16	NO3
8	Well	4 North	19 West	21	As
9	Well	4 North	19 West	21	As, NO3
10	Well	4 North	19 West	21	NO3
11	Well	4 North	19 West	21	NO3
12	Well	4 North	19 West	21	NO3
13	Well	4 North	19 West	21	NO3
14	Well	4 North	19 West	21	NO3
15	Well	4 North	19 West	21	NO3
16	Well	4 North	19 West	21	NO3
17	Well	4 North	19 West	21	NO3
18	Well	4 North	19 West	21	Organics
19	Well	4 North	19 West	21	Organics
20	Well	4 North	19 West	21	Organics
21	Well	4 North	19 West	21	Organics
22	Well	4 North	19 West	21	Organics
23	Well	4 North	19 West	21	NO3
24	Well	4 North	19 West	21	Organics
25	Well	4 North	19 West	21	Organics
26	Well	4 North	19 West	21	Organics
27	Well	4 North	19 West	21	Organics
28	Well	4 North	19 West	21	Organics
29	Well	4 North	19 West	21	Organics
30	Well	4 North	19 West	21	Organics
31	Well	4 North	19 West	21	Organics
32	Well	4 North	19 West	21	Organics
33	Well	4 North	19 West	22	NO3
34	Well	4 North	19 West	22	As
35	Well	4 North	19 West	26	As
36	Well	4 North	19 West	27	As
37	Well	4 North	19 West	27	NO3
38	Well	4 North	19 West	27	F
39	Well	4 North	19 West	27	NO3
40	Well	4 North	19 West	27	NO3
41	Well	4 North	19 West	27	NO3
42	Well	4 North	19 West	28	NO3
43	Well	4 North	19 West	28	NO3
44	Well	4 North	19 West	28	NO3

Table 7.6-7 Water Quality Exceedences in the Parker Basin (cont'd)[1]

Map Key	Site Type	Site Location			Parameter(s) Concentration has Equaled or Exceeded Drinking Water Standard (DWS)[2]
		Township	Range	Section	
45	Well	4 North	19 West	28	NO3
46	Well	4 North	19 West	28	NO3
47	Well	4 North	19 West	28	NO3
48	Well	4 North	19 West	29	NO3
49	Well	4 North	19 West	31	Pb
50	Well	3 North	19 West	7	As
51	Well	1 North	23 West	33	TDS
52	Well	1 South	23 West	32	TDS

B. Lakes and Streams

Map Key	Site Type	Site Name	Length of Impaired Stream Reach (in miles)	Area of Impaired Lake (in acres)	Designated Use Standard	Parameter(s) Exceeding Use Standard
None identified by ADWR at this time						

Notes:

[1] Water quality samples collected between 1976 and 2001.

[2] As = Arsenic
Cr = Chromium
F = Fluoride
Pb = Lead
Organics = One or more of several volatile and semi-volatile organic compounds and pesticides
NO3 = Nitrate/ Nitrite

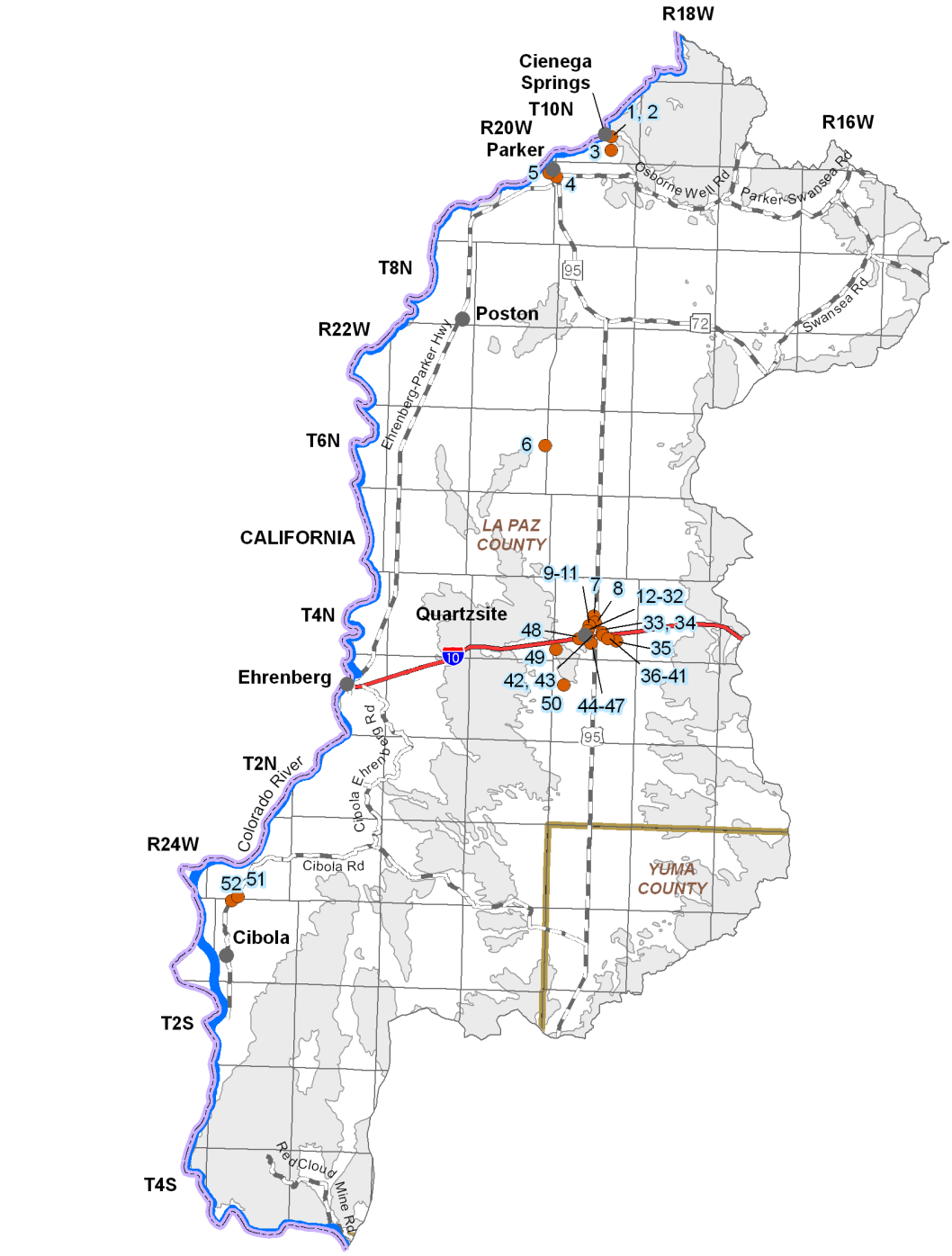


Figure 7.6-9
Parker Basin
Water Quality Conditions

7.6.8 Cultural Water Demands in the Parker Basin

Cultural water demand data including population, number of wells and the average well pumpage and surface water diversions by the municipal, industrial and agricultural sectors are shown in Table 7.6-8. Effluent generation including facility ownership, location, population served and not served, volume treated, disposal method and treatment level is shown in Table 7.6-9. Figure 7.6-10 shows the location of demand centers. A description of cultural water demand data sources and methods is found in Volume 1, Section 1.3.5. More detailed information on cultural water demands is found in Section 7.0.7.

Cultural Water Demands

- Refer to Table 7.6-8 and Figure 7.6-10.
- Population in this basin increased from 11,339 in 1980 to 16,166 in 2000 and projections suggest an increase of more than 11,000 people by 2050.
- Most cultural water use is for irrigation on the Colorado River Indian Tribe's land in the northwestern portion of the basin.
- Agricultural surface water demand remained relatively constant from 1991 to 2003 with 653,000 acre-feet diverted per year on average in 2000-2003. Agricultural groundwater demand decreased slightly between 1991 and 2003.
- Municipal demand is relatively small. Groundwater demand increased 13% and surface water demand increased 25% from 1991 to 2003.
- There is a relatively small amount of industrial demand in this basin associated with sand and gravel operations.
- As of 2003 there were 1,551 registered wells with a pumping capacity of less than or equal to 35 gallons per minute and 93 wells with a pumping capacity of more than 35 gallons per minute.

Effluent Generation

- Refer to Table 7.6-9.
- There are 12 wastewater treatment facilities in this basin.
- Information on population served was available for 10 facilities and information on the volume of effluent generated was available for all 12 facilities. These facilities serve almost 12,000 people and generate almost 2,200 acre-feet of effluent per year.
- One facility discharges to a watercourse, two facilities discharge for irrigation, one to a golf course and five discharge to unlined impoundments that recharge the aquifer.

Table 7.6-8 Cultural Water Demands in the Parker Basin[1]

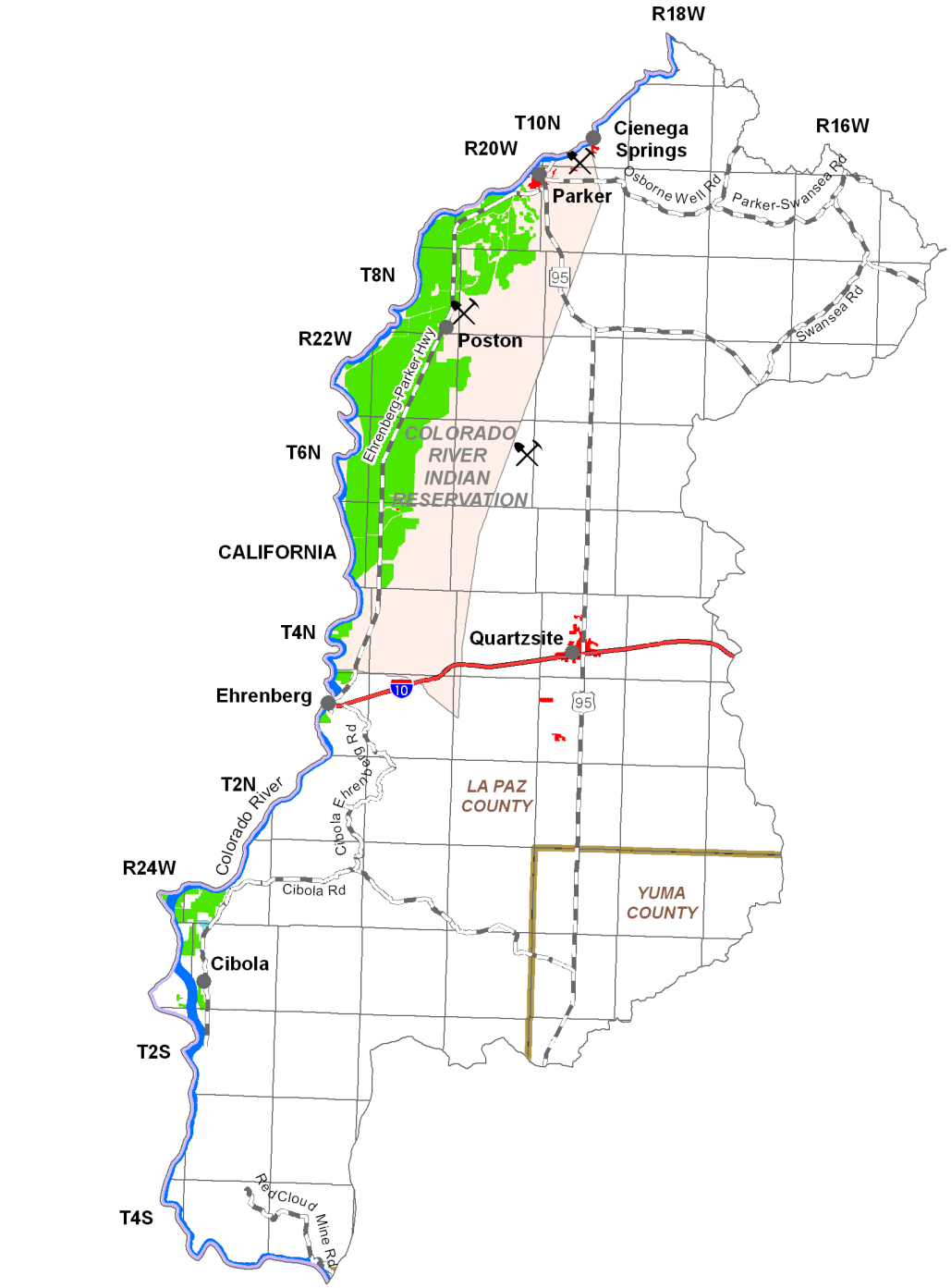
Year	Recent (Census) and Projected (DES) Population	Number of Registered Water Supply Wells Drilled		Average Annual Demand (in acre-feet)[3]						Data Source
				Well Pumpage			Surface-Water Diversions			
		Q ≤ 35 gpm	Q > 35 gpm	Municipal	Industrial	Irrigation	Municipal	Industrial	Irrigation	
1971		914[2]	71[2]	9,000			1,251,000[4]			ADWR (1994)
1972										
1973										
1974										
1975										
1976				21,000			1,102,000[4]			
1977										
1978										
1979										
1980	11,339									
1981	11,398	202	9	25,000			1,130,000[4]			
1982	11,457									
1983	11,516									
1984	11,575									
1985	11,634									
1986	11,693	208	8	18,000			1,229,000[4]			
1987	11,752									
1988	11,810									
1989	11,869									
1990	11,928									
1991	12,352	100	3	2,900	NR	1,300	400	NR	662,000	USGS (2005) ADWR (2005)
1992	12,776									
1993	13,200									
1994	13,623									
1995	14,047									
1996	14,471	82	0	3,200	NR	<1,000	450	NR	667,000	
1997	14,895									
1998	15,318									
1999	15,742									
2000	16,166									
2001	16,418	24	0	3,300	<300	<1,000	500	NR	653,000	
2002	16,670									
2003	16,923									
2010	18,688									
2020	23,294									
2030	25,705									
2040	26,759									
2050	27,222									
ADDITIONAL WELLS:[5]		**21**	**2**							
WELL TOTALS:		**1,551**	**93**							

[1] Does not include evaporation losses from stockponds and reservoirs.
[2] Includes all wells through 1980.
[3] Includes pumpage and diversion of Colorado River Contract Water.
[4] Includes surface-water diversions in the Lower Gila and Yuma basins.
[5] Other water-supply wells are listed in the ADWR Well Registry for this basin, but they do not have completion dates. These wells are summed here.
NR - Not reported

Table 7.6-9 Effluent Generation in the Parker Basin

Facility Name	Ownership	City/Location Served	Population Served	Volume Treated/Generated (acre-feet)	Disposal Method							Current Treatment Level	Population Not Served	Year of Record
					Water-course	Evaporation Pond	Irrigation	Golf Course	Wildlife Area	Discharged to Another Facility	Infiltration Basins			
Bouse WWTP	Arizona Department of Transportation	Rest Area	NA	301	NA									1996
Buckskin Mtn. WWTF	State of Arizona	State Park	240	11	X							Secondary	NA	2001
Buckskin/Sandpiper WWTP	Buckskin SD	Parker	50	6			X	Emerald Canyon				Adv. Trt. I	1,450	1996
Colorado River Joint Venture	NA	Parker	5,000	896			X					Secondary	14,000	1999
Headstart Sewer System	Colorado River Tribes	School	90	10							X	Secondary	90	2000
Mochem Sewer System	Colorado River Tribes	Reservation	1,000	112							X	Secondary	125	1999
Parker WWTP	Colorado River Tribes	Parker	3,045	336							X	Secondary	NA	2002
Poston	Colorado River Tribes	Poston	600	67							X	Secondary	NA	2000
Poston BIA WWTF	Bureau of Indian Affairs	Poston	489	11	NA							Secondary	NA	2001
Poston CRHA	Colorado River Housing Authority	Poston	244	11	NA							Secondary	47	2001
Quartzsite WWRF	Quartzsite	Quartzsite	1,000	370							X	Adv.Trt. I	NA	2001
Thompson Enterprises	Private	RV Park	NA	29	NA									

NA: Data not currently available to ADWR
WWTF: Waste Water Treatment Facility
WWTP: Waste Water Treatment Plant
WWRF: Waste Water Reclamation Facility
SD: Sanitation District



Primary Data Source: USGS National Gap Analysis Program, 2004

0 3 6
Miles

Demand Centers

- Agriculture
- M&I - High Intensity
- M&I - Low Intensity
- Small Mine / Quarry
- Indian Reservation
- California State Boundary
- COUNTY
- Interstate Highway
- Major Road
- City, Town or Place

Figure 7.6-10
Parker Basin
Cultural Water Demand

7.6.9 Water Adequacy Determinations in the Parker Basin

Water adequacy determination information including the subdivision name, location, number of lots, adequacy determination, reason for an inadequacy determination, date of determination and subdivision water provider are shown in Table 7.6-10. Figure 7.6-11 shows the general locations of subdivisions (to the section level) keyed to the Table. A description of the Water Adequacy Program is found in Volume 1, Appendix A. Adequacy determination data sources and methods are found in Volume 1, Sections 1.3.1.

Water Adequacy Reports

- See Table 7.6-10
- As of May 2005, 22 subdivisions had been reviewed for an adequacy determination. All subdivisions are in La Paz County.
- Of the 1,539 lots in 22 subdivisions for which lot information is available, 1,279 lots or 83% were determined to be adequate.
- The most common reason for a determination of inadequacy is insufficient data.

Table 7.6-10 Adequacy Determinations in the Parker Basin[1]

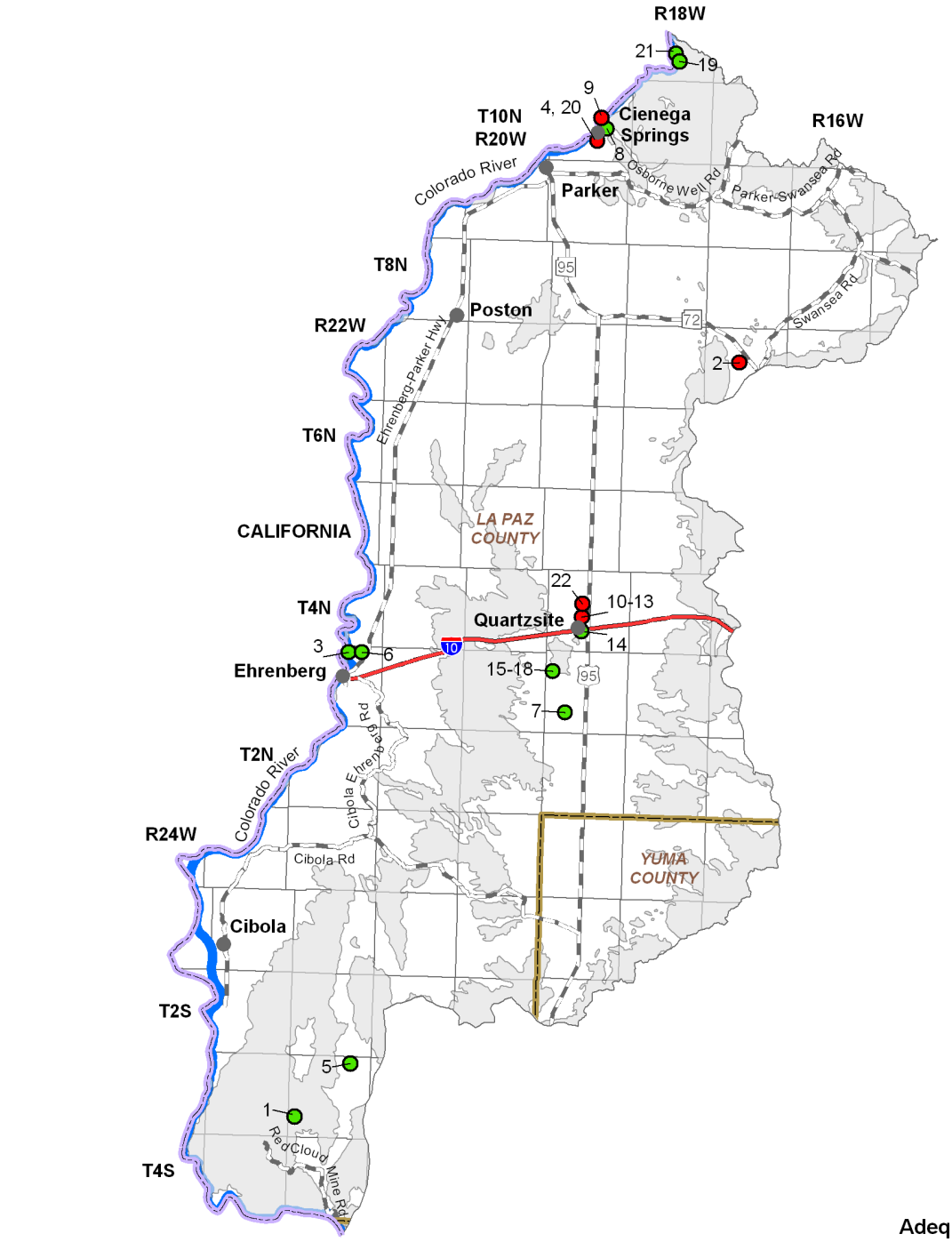
Map Key	Subdivision Name	County	Location			No. of Lots	ADWR File No.[2]	ADWR Adequacy Determinatio	Reason(s) for Inadequacy Determination	Date of Determination	Water Provider at Time of Application
			Township	Range	Section						
1	College Acres	La Paz	3 South	22 West	30	16		Adequate		9/18/74	Dry Lot Subdivision
2	Brandy Hills West	La Paz	7 North	17 West	16	92		Inadequate	C	02/21/74	Dry Lot Subdivision
3	Emerald Springs Unit I	La Paz	3 North	22 West	3, 10	53	22-300299	Adequate		5/7/97	Ehrenberg Water Company
4	Highland Estates Amended	La Paz	10 North	19 West	27	17		Inadequate	B	12/5/94	Dry Lot Subdivision
5	La Paz Estates	La Paz	3 South	22 West	2	156		Adequate		5/28/76	La Paz Water Company
6	La Paz Estates # 1	La Paz	3 North	22 West	2	23		Adequate		5/9/88	Ehrenberg Water Company
7	La Paz Valley Acres	La Paz	3 North	19 West	29	20		Adequate		6/10/84	Dry Lot Subdivision
8	Lake Moovalya Keys (amended)	La Paz	10 North	19 West	22			Adequate		1/14/92	Consolidated Water Utilities
9	Miraleste Shores Estates	La Paz	10 North	19 West	15	46		Inadequate	B	4/4/94	Consolidated Water Utilities, Ltd.
10	Moon Mountain Estates	La Paz	4 North	19 West	21	12		Inadequate	A1	4/10/80	Dry Lot Subdivision
11	Moon Mountain Estates # 2	La Paz	4 North	19 West	21	24		Inadequate	A1	6/24/85	Dry Lot Subdivision
12	Mountain View Resort	La Paz	4 North	19 West	21	54	22-300548	Inadequate	A1	10/15/98	Town of Quartzite
13	Mountain View Subdivision	La Paz	4 North	19 West	21	10	22-300549	Inadequate	A1	10/15/98	Town of Quartzite
14	Q Mountain Mobile Home & RV	La Paz	4 North	19 West	28	248		Adequate		1/11/91	Q Mountain Water Company
15	Rainbow Acres Unit 1 Phase II	La Paz	3 North	19 West	7	63	22-300333	Adequate		9/22/97	Q Mountain Water Company
16	Rainbow Acres Unit 2	La Paz	3 North	19 West	7	113	22-300429	Adequate		9/15/98	Q Mountain Water Company
17	Rainbow Acres Unit 3 Phase I	La Paz	3 North	19 West	7	123	22-400086	Adequate		8/2/99	Q Mountain Water Company
18	Rainbow Acres Unit 3 Phase II	La Paz	3 North	19 West	7	137	22-400247	Adequate		5/8/00	Q Mountain Water Company
19	Ranchero Estates 1 & 2	La Paz	11 North	18 West	27	NA		Adequate		06/30/76	Holiday Harbor Utilities Company
20	Riverview	La Paz	10 North	19 West	27			Inadequate	D	10/22/74	Lake-Side Utilities, Inc.
21	Verde West R.V.Park	La Paz	11 North	18 West	27	327		Adequate		4/17/86	Consolidated Utilities
22	Vinnedge	La Paz	4 North	19 West	16	5		Inadequate	D	12/8/75	Dry Lot Subdivision

Notes:

[1]Each determination of the adequacy of water supplies available to a subdivision is based on the information available to ADWR and the standards of review and policies in effect at the time the determination was made. In some cases, ADWR might make a different determination if a similar application were submitted today, based on the hydrologic data and other information currently available, as well as current rules and policies.

[2] Prior to February 1995, ADWR did not assign file numbers to applications for adequacy determination.

[3] A. Physical/Continuous
1) Insufficient Data (applicant chose not to submit necessary information, and/or available hydrologic data insufficient to make determination)
2) Insufficient Supply (existing water supply unreliable or physically unavailable;for groundwater, depth-to-water exceeds criteria)
3) Insufficient Infrastructure (distribution system is insufficient to meet demands or applicant proposed water hauling)
B. Legal (applicant failed to demonstrate a legal right to use the water or failed to demonstrate the provider's legal authority to serve the subdivision)
C. Water Quality
D. Unable to locate records



0 3 6 Miles

Adequacy Determinations

- Adequate
- Inadequate
- Consolidated Crystalline & Sedimentary Rocks
- Unconsolidated Sediments
- California State Boundary
- COUNTY
- Interstate Highway
- Major Road
- City, Town or Place

Figure 7.6-11
Parker Basin
Adequacy Determinations

Parker Basin
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